

CLAIMS

What is claimed is:

1. A user equipment (UE) for transmitting signals employing a CDMA technique, comprising:

means for combining a plurality of spread spectrum data signals;

means for measuring a characteristic of the output of said combining means for a given time period; and

means for adaptively limiting an output of the combining means responsive at least partially to an output of said measuring means.

2. The UE of claim 1 further comprising means for modulating the output of said combining means to produce an RF signal, wherein said measuring means measures an output of the modulating means over the given time period.

3. The UE of claim 2 further comprising an amplifier for amplifying the RF signal, and wherein said measuring means measures an output of the amplifier over the given time period.

4. The UE of claim 1 wherein said measuring means determines a variance of the output of said combining means, and wherein said adaptive limiting means limits the output to a given power level based in part on an approximation of the variance.

5. The UE of claim 1 wherein said measuring means determines an average of a square of said output, and wherein said adaptive limiting means limits the output to a given power level based in part on the average of the square of said output.

6. The UE of claim 1 wherein said measuring means determines an average of an absolute value of said output; and

said adaptive limiting means limits said output to a given power level based in part on the average of the absolute value of said output.

7. The UE of claim 1 wherein said measuring means determines the magnitude of said output, said measuring means having processing means for determining a variance of said output based on the determined magnitude of said output; and wherein said adaptive limiting means limits said output to a calculated power level based in part on the determined variance.

8. The UE of claim 1 wherein said measuring means has processing means for determining a standard deviation of said output and said adaptive limiting means limits said output to a given power level based in part on the determined standard deviation.

9. The UE of claim 8 wherein the calculated power level is twice as great as a standard deviation.

10. The UE of claim 8 wherein the calculated power level is at least one standard deviation.

11. The UE of claim 8 wherein said processing mean disables said adaptive limiting means when a number of active users reaches a given value.

12. The UE of claim 8 wherein said processing means disables said adaptive limiting means during transmission of short codes.

13. The UE of claim 1 further comprising a modulator for modulating said output to produce an RF signal and an amplifier for amplifying the RF signal prior to transmission, said measuring means determining a power level of said output; wherein a gain of said amplifier is adjusted by a processing means in response to the calculated power level and stored gain characteristics of said amplifier.

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